



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,996	12/29/2000	James T. Theodoras II	M-9283 US	7693
33031	7590	11/05/2003	EXAMINER	
CAMPBELL STEPHENSON ASCOLESE, LLP 4807 SPICEWOOD SPRINGS RD. BLDG. 4, SUITE 201 AUSTIN, TX 78759			NGUYEN, TUAN M	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,996

Applicant(s)

THEODORAS ET AL.

Examiner

Tuan M Nguyen

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Paul IP

PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Burbidge et al (US patent 6,101,200).

With respect to claims 1 and 9, Burbidge et al discloses a thermo-electric cooler (6) coupled to a laser module (1) includes laser (7) comprising the operating the thermo-electric cooler (6) in one of at least an automatic temperature control module (3) is consider as a low power mode and an automatic power control module (2) is consider as a standard mode, the laser module configured to transmit signal in the low power mode and the standard mode; and a PIN diode (4) is consider as switching between the low power mode and the standard mode; wherein an automatic temperature control (ATC) module being configured to adjust the operating temperature of the laser such that it reaches a targeted temperature level this operation is consider as a low power mode and an automatic power control (APC) module being configured to adjusted the laser drive current such that the laser output is locked onto a targeted optical power level this function is consider as a standard mode, note col. 1 line 22 to col. col. 5 line 42, see figures 1-2.

With respect to claims 2-8 and 10-13, Burbidge et al discloses a Dense Wavelength Division Multiplexing (DWDM) can be used to generate in addition to the wavelength error

Art Unit: 2828

signal for pre-DWDM ATC module 3, the optical power level signal for the pre-DWDM APC module 2, note col. 2 line 13 to col. 9 line 15.

With respect to claim 14, Burbidge et al shows in figures 1-2 and 6 a temperature circuit, thermo-electric cooler (6), laser module (1) including a laser (7) wherein the thermo-electric cooler is responsive to inputs from temperature circuit, the input identifying one of at least a first mode and a second mode, wherein a choice of the one of at least a first mode and second mode is a function of a performance requirement, note col. 6 line 57 to col. 10 line 35.

With respect to claims 15-22, Burbidge et al discloses the first mode is a standard mode for dense wavelength division multiplexing application and the wavelength signal circuit configured to transmit feedback to the temperature circuit to maintain a stable wavelength for the laser diode, note col. 4 line 29 to col. 10 line 35.

Response to Arguments

2. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Citation Of The Pertinent References

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Prescott (US Pub 2003/0033819) discloses current mode control of thermo-electric cooler.

The patent to Pan (US patent 6,525,550) discloses method and apparatus for temperature control.

The patent to Wernlund et al (US patent 6,519,949) discloses dual pulse width modulated driver for thermo-electric cooler.

Art Unit: 2828

The patent to Burbidge et al (US patent 6,094,918) discloses thermoelectric cooler control circuit.

The patent to Spurr et al (US patent 9,966,394) discloses laser diode controller.


Communication Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan M Nguyen whose telephone number is (703) 306-0247.

The examiner can normally be reached on 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.


Paul Ip
SPE
Art unit 2828

TMN
October 29, 2003